

This Opinion is Not a
Precedent of the TTAB

Hearing: October 6, 2022

Mailed: February 16, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

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Trademark Trial and Appeal Board
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In re Wave Neuroscience, Inc.
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Serial No. 88796139
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Farah P. Bhatti and J Rick Taché of Buchalter a Professional Corporation,
for Wave Neuroscience, Inc.

Regina C. Hines, Trademark Examining Attorney, Law Office 114,
Nicole Nguyen, Managing Attorney.

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Before Wellington, Adlin and Hudis,
Administrative Trademark Judges.

Opinion by Hudis, Administrative Trademark Judge:

Wave Neuroscience, Inc. (“Applicant”) seeks registration on the Principal Register
of the proposed standard character mark WAVE NEURO for:

Downloadable computer operating programs and computer operating
software for neuromodulation devices and devices for the analysis of
data of brainwave activity; downloadable computer programs and
software for the analysis of data about neurological disorders and
brainwave activity, in International Class 9;

Medical devices, namely, neuromodulation devices and devices for the
analysis of brainwave activity, in International Class 10;

Medical, scientific, and clinical research in the fields of neurological
disorders, treatment of neurological disorders, neuromodulation
technology, analysis of brainwave activity, and cognitive performance;

online non-downloadable software for the analysis of data of neurological disorders and brainwave activity; software-as-a-service, namely, non-downloadable operating programs and non-downloadable computer operating software for neuromodulation devices and devices for the analysis of of [sic] data of brainwave activity, in International Class 42; and

Medical clinics in the field of analysis and treatment of neurological disorders, brainwave activity, and cognitive performance, in International Class 44.¹

The Trademark Examining Attorney refused registration under Trademark Act Section 2(e)(1), 15 U.S.C. § 1052(e)(1), on the ground that the proposed mark is merely descriptive as applied to the goods and services identified in the Application.

When the refusal was made final, Applicant appealed and requested reconsideration. After the Examining Attorney denied the request for reconsideration, the appeal was resumed. The appeal is fully briefed, and an oral hearing was held before this panel. We affirm the refusal to register.

I. Prior Proceeding – Collateral Estoppel

On February 13, 2020, Applicant applied to register the proposed marks WAVE NEUROSCIENCE (in standard characters) and , Application Serial Nos. 88796115 and 88796142 respectively, both applications reciting goods and services nearly identical to those identified in the involved application now on appeal. In each prior application, Applicant disclaimed exclusive rights to the term “NEUROSCIENCE.” The mark of Application Serial No. 88796115 was refused registration on the grounds of mere descriptiveness. The mark of Application Serial

¹ Application Serial No. 88796139 was filed on February 13, 2020, under Trademark Act Section 1(b), 15 U.S.C. § 1051(b), based upon Applicant’s allegation of a bona fide intention to use the mark in commerce.

No. 88796142 was refused registration in the absence of disclaimer of “WAVE NEUROSCIENCE” pursuant to Trademark Act Section 6(a), 15 U.S.C. § 1056(a). Applicant appealed the consolidated refusals to the Board (the “Prior Proceeding”).

In its decision issued on September 30, 2021 in the Prior Proceeding, the Board affirmed the refusals to register both prior applications. Applicant did not appeal from the Board’s decision on either application, and did not enter a disclaimer of “WAVE NEUROSCIENCE” with respect to Application Serial No. 88796142. Accordingly, both applications were abandoned.

In this case, neither the Examining Attorney nor Applicant explicitly raised or referred to the possibility of issue preclusion based on the Board’s findings and determinations in the Prior Proceeding. In any event, “res judicata [or claim preclusion] and collateral estoppel [or issue preclusion] are not, in and of themselves, grounds for ... [refusal]. Rather, they are legal rules which serve to preclude, in appropriate cases, the relitigation of matters previously litigated.” *Flowers Indus. v. Interstate Brands Corp.*, 5 USPQ2d 1580, 1583 n.5 (TTAB 1987).

Given the similarities between the present appeal and the Prior Proceeding, we address, sua sponte, the matter of issue preclusion and determine whether the Prior Proceeding precludes relitigation of any issues in this appeal. *See e.g., XY, LLC v. Trans Ova Genetics, LC*, 890 F.3d 1282, 127 USPQ2d 1084, 1093 (Fed. Cir. 2018) (“[T]his court, in circumstances such as this one, applies [collateral] estoppel sua sponte to avoid “unnecessary judicial waste” from remanding an issue that has a clear estoppel effect.”) (quoting *Arizona v. California*, 530 U.S. 392, 412 (2000)); *Transclean*

Corp. v. Jiffy Lube Int'l, Inc., 474 F.3d 1298, 81 USPQ2d 1400, 1406 (Fed. Cir. 2007) (“[P]reclusion issues may be raised by a court sua sponte.”).

The doctrine of issue preclusion provides that when “[(1)] an issue of fact or law is actually litigated and [(2)] determined by a valid and final judgment, and [(3)] the determination is essential to the judgment, [such that (4)] the determination is conclusive in a subsequent action between the parties, whether on the same or a different claim.” *B&B Hardware, Inc. v. Hargis Indus.*, 575 U.S. 138, 113 USPQ2d 2045, 2051 (2015) (quotation omitted); *in accord*, *Mayer/Berkshire Corp. v. Berkshire Fashions Inc.*, 424 F.3d 1229, 76 USPQ2d 1310, 1313 (Fed. Cir. 2005); *Mother’s Rest. Inc. v. Mama’s Pizza, Inc.*, 723 F.2d 1566, 221 USPQ 394, 397 (Fed. Cir. 1983); *Valvoline Licensing & Intell. Prop. LLC v. Sunpoint Int’l Grp. USA Corp.*, 2021 USPQ2d 785, at *6-7 (TTAB 2021); *see also In re Anderson*, 101 USPQ2d 1912, 1916 (TTAB 2012) (“The doctrine of collateral estoppel, or ‘issue preclusion,’ applies when ‘a matter has been litigated and decided.’”) (quoting *Migra v. Warren City Sch. Dist. Bd. Of Educ.*, 465 U.S. 75, 77 , n.1 (1984)).

Under the doctrine of issue preclusion, once an issue is actually and necessarily determined by a court of competent jurisdiction, that determination is normally conclusive in a subsequent suit. *Int’l Order of Job’s Daughters v. Lindeburg & Co.*, 727 F.2d 1087, 220 USPQ 1017, 1019 (Fed. Cir. 1984); *Daimler Chrysler Corp. v. Maydak*, 86 USPQ2d 1945, 1948 (TTAB 2008). The underlying rationale is that a party who has litigated an issue to a final decision is bound by that decision and cannot demand that the issue be decided again. *Mother’s Rest.*, 221 USPQ at 397.

Issue preclusion, as distinguished from claim preclusion, does not include any requirement that the claim or cause of action in the subsequent proceeding be the same. Rather, the focus under issue preclusion is on the issue itself and whether that issue is the same in the two proceedings. *Int'l Order of Job's Daughters*, 220 USPQ at 1019. The Board has applied the preclusion doctrine in the context of successive ex parte appeals. *Cf. In re SolarWindow Techs., Inc.*, 2021 USPQ2d 257, at *3-10 (TTAB 2021) (applying res judicata, or claim preclusion, to prevent the applicant from relitigating whether its mark was merely descriptive). During our discussion below regarding the merits of the present appeal, we will apply the requirements for collateral estoppel to the facts of the case before us to determine whether issue preclusion applies.

II. Applicable Law – Mere Descriptiveness

“A term is merely descriptive if it immediately conveys knowledge of a quality, feature, function, or characteristic of the goods or services with which it is used.” *In re Chamber of Commerce of the U.S.*, 675 F.3d 1297, 102 USPQ2d 1217, 1219 (Fed. Cir. 2012) (quoting *In re Bayer AG*, 488 F.3d 960, 82 USPQ2d 1828, 1831 (Fed. Cir. 2007)); *In re Gyulay*, 820 F.2d 1216, 3 USPQ2d 1009, 1009-10 (Fed. Cir. 1987).² “A mark need not recite each feature of the relevant goods or services in detail to be descriptive, it need only describe a single feature or attribute.” *In re Chamber of*

² A term that is merely descriptive of the identified goods and services may not be registered on the Principal Register without a showing of acquired distinctiveness. Trademark Act Sections 2(e)(1), 2(f), 15 U.S.C. §§ 1052(e)(1), 1052(f). Applicant does not claim that WAVE NEURO (or any of its individual terms) has acquired distinctiveness; and we therefore do not consider the issue.

Commerce, 102 USPQ2d at 1219 (citation and internal quotation omitted). See also *In re Oppedahl & Larson LLP*, 373 F.3d 1171, 71 USPQ2d 1370, 1371 (Fed. Cir. 2004) (“A mark may be merely descriptive even if it does not describe the ‘full scope and extent’ of the applicant’s goods or services.”) (citing *In re Dial-A-Mattress Operating Corp.*, 240 F.3d 1341, 57 USPQ2d 1807, 1812 (Fed. Cir. 2001)). Moreover, “[t]hat a term may have other meanings in different contexts is not controlling on the question of descriptiveness.” *In re NextGen Mgt., LLC*, 2023 USPQ2d 14, at *6 (TTAB 2023).

Whether a particular term is merely descriptive is determined in relation to the goods or services for which registration is sought and the context in which the term is used, not in the abstract or on the basis of guesswork. *In re Abcor Dev. Corp.*, 588 F.2d 811, 200 USPQ 215, 218 (CCPA 1978); *In re Remacle*, 66 USPQ2d 1222, 1224 (TTAB 2002). In other words, the question is whether someone who knows what the goods or services are will understand the mark to convey information about them. *In re TriVita, Inc.*, 783 F.3d 872, 114 USPQ2d 1574, 1575 (Fed. Cir. 2015); *DuoProSS Meditech Corp. v. Inviro Med. Devices, Ltd.*, 695 F.3d 1247, 103 USPQ2d 1753, 1757 (Fed. Cir. 2012); *In re Tower Tech, Inc.*, 64 USPQ2d 1314, 1316–17 (TTAB 2002). “On the other hand, if one must exercise mature thought or follow a multi-stage reasoning process in order to determine what product or service characteristics the term indicates, the term is suggestive rather than merely descriptive.” *In re Tennis in the Round, Inc.*, 199 USPQ 496, 497 (TTAB 1978). The Board resolves any doubts as to the mere descriptiveness of a proposed mark in favor of the applicant and publishes

the mark for potential opposition. *In re Fat Boys Water Sports LLC*, 118 USPQ2d 1511, 1512 (TTAB 2016).

Where a mark consists of multiple words, the mere combination of descriptive words does not necessarily create a non-descriptive word or phrase. *In re Phoseon Tech., Inc.*, 103 USPQ2d 1822, 1823 (TTAB 2012); *In re Assoc. Theatre Clubs Co.*, 9 USPQ2d 1660, 1662 (TTAB 1988). A mark comprising a combination of merely descriptive components is registrable if “the combination of the component words of Applicant’s mark ‘conveys any distinctive source-identifying impression contrary to the descriptiveness of the individual parts.’” *In re Fat Boys*, 118 USPQ2d at 1515-16 (quoting *In re Oppedahl & Larson LLP*, 71 USPQ2d at 1372).

However, if each component retains its merely descriptive significance in relation to the goods or services, the combination results in a composite that is itself merely descriptive. *See, e.g., In re Oppedahl & Larson*, 71 USPQ2d at 1374 (PATENTS.COM merely descriptive of computer software for managing a database of records that could include patents and for tracking the status of the records by means of the Internet); *see also In re Phoseon Tech.*, 103 USPQ2d at 1823 (“When two or more merely descriptive terms are combined, ... [i]f each component retains its merely descriptive significance in relation to the goods or services, the combination results in a composite that is itself merely descriptive.”).

Thus, our determination as to whether WAVE NEURO is merely descriptive is based on an analysis of the proposed mark as a whole. *DuoProSS Meditech*, 103 USPQ2d at 1756 (“When determining whether a mark is merely descriptive, the

Board must consider the commercial impression of a mark as a whole.”). On the other hand, we may consider the significance of each element separately in the course of evaluating the mark as a whole. *Id.* at 1756-57 (noting that “[t]he Board to be sure, can ascertain the meaning and weight of each of the components that makes up the mark.”).

Evidence that a term is merely descriptive to the relevant purchasing public “may be obtained from any competent source, such as dictionaries, newspapers, or surveys,” *In re Bayer*, 82 USPQ2d at 1831, as well as “labels, packages, or in advertising material directed to the goods [or services].” *In re Abcor*, 200 USPQ at 218. It also may be obtained from websites and publications. *In re N.C. Lottery*, 866 F.3d 1363, 123 USPQ2d 1707, 1710 (Fed. Cir. 2017); *In re Nett Designs Inc.*, 236 F.3d 1339, 57 USPQ2d 1564, 1565 (Fed. Cir. 2001). “Evidence that a term is merely descriptive similarly may come from an applicant’s own usage other than that found on its labels, packaging or advertising materials.” *In re Omniome, Inc.*, 2020 USPQ2d 3222, at *4 (TTAB 2019) (citing *In re Chamber of Commerce*, 102 USPQ2d at 1220 (content of applicant’s website, along with articles discussing the activities of chambers of commerce, constituted substantial evidence supporting the Board’s mere descriptiveness finding)).

III. Evidence of Mere Descriptiveness³

As Applicant appropriately observes, “[a] suitable starting place [to determine whether Applicant’s proposed mark is merely descriptive] is the dictionary, for the

³ Across the several Office Actions issued during prosecution, the Examining Attorney made of record the same evidence, particularly dictionary definitions, articles and Applicant’s

dictionary definition of the word is an appropriate and relevant indication of the ordinary significance and meaning of words to the public.”⁴ The Examining Attorney made of record the following dictionary definitions:

Definitions of **WAVE**:

- (physics definition) a disturbance that travels through a medium. Energy is transferred by a wave from one region of the medium to another without causing any permanent displacement of the medium; a graphic representation of the variation of such a disturbance with time.⁵
- (medical definition) a disturbance or variation that transfers energy progressively from point to point in a medium and that may take the form of an elastic deformation or of a variation of pressure, electrical or magnetic intensity, electrical potential, or temperature; one complete cycle of such a disturbance; an undulating or jagged line constituting a graphic representation of an action.⁶
- Variation in the transmission of electromagnetic energy, especially the periodic change in direction of a reading on a monitoring device (providing, as examples, Alpha, Beta, Delta and Theta brain waves; and generally a brain wave – the fluctuation, usually rhythmic, of electrical impulses produced by the brain.).⁷

website, multiple times. “Suffice it to say, the probative value of documentary evidence does not increase with repetition, it needlessly increases the size of the record, and makes review of the record more difficult.” *In re Six Continents Ltd.*, 2022 USPQ2d 135, at *3 (TTAB 2022).

⁴ Applicant’s Brief, 8 TTABVUE 21. Page references herein to the application record refer to the online database of the USPTO’s Trademark Status & Document Retrieval (“TSDR”) system. All citations to documents contained in the TSDR database are to the downloadable .pdf versions of the documents in the TSDR Case Viewer. References to the briefs on appeal refer to the Board’s TTABVUE docket system. Before the TTABVUE designation is the docket entry number; and after this designation are the page references, if applicable.

⁵ Office Action of May 19, 2020, at TSDR 17; Office Action of December 8, 2020, at TSDR 8 (referencing the AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE).

⁶ Office Action of May 19, 2020, at TSDR 20; Office Action of December 8, 2020, at TSDR 11; Denial of Reconsideration of March 4, 2022, at TSDR 11 (referencing MERRIAM-WEBSTER).

⁷ Office Action of June 14, 2021 at TSDR 56-59; Denial of Reconsideration of March 4, 2022, at TSDR 5-9 (referencing THE FREE DICTIONARY BY FARLEX).

- A variation of an electromagnetic field in the propagation of light or other radiation through a medium or vacuum.⁸

Definitions of **BRAIN WAVE**:

- Rhythmic fluctuations of voltage between parts of the brain resulting in the flow of an electric current.⁹
- A rhythmic fluctuation of electric potential between parts of the brain, as seen on an electroencephalogram.¹⁰

Definitions of **NEURO**-:

- A variant of NEUR- (combining form); nerve (neuralgia, neurology); neural (neuromuscular).¹¹
- A combining denoting a nerve, of or pertaining to a nerve or the nervous system.¹²
- [U]sed to form words that refer or relate to a nerve or the nervous system (neuro-scientist, neuromuscular); of a nerve, nerves. or the nervous system (neuropathy).¹³
- Relating to nerves or the nervous system.¹⁴
- A combining form meaning “nerve,” “nerves,” “nervous system,” used in the formation of compound words (neurology).¹⁵
- Applicant also made of record the following recognized abbreviations of **NEURO**-: Neuro/Neurologist; Neuro/Neurology; Neuro/Neurological –

⁸ Denial of Reconsideration of March 4, 2022, at TSDR 10 (referencing Oxford LEXICO).

⁹ Denial of Reconsideration of March 4, 2022, at TSDR 12 (referencing MERRIAM-WEBSTER).

¹⁰ Denial of Reconsideration of March 4, 2022, at TSDR 13 (referencing the AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE).

¹¹ Office Action of May 19, 2020, at TSDR 7 (referencing MERRIAM-WEBSTER).

¹² Office Action of June 14, 2021, at TSDR 52 (referencing the WEBSTER’S 1913 DICTIONARY).

¹³ Office Action of June 14, 2021, at TSDR 53-54 (referencing COLLINS, American English). From the same dictionary (Office Action Response of April 12, 2021, at TSDR 14) Applicant proffered the following definition of **NEURO**-: “a combining form meaning ‘nerve,’ ‘nerves,’ ‘nervous system,’ used in the formation of compound words; neurology.”

¹⁴ Denial of Reconsideration of March 4, 2022, at TSDR 43 (referencing Oxford LEXICO).

¹⁵ Denial of Reconsideration of March 4, 2022, at TSDR 44 (referencing DICTIONARY.COM). Applicant made of record the same dictionary definition (Office Action Response of April 12, 2021 at TSDR 17).

pertaining to the nervous system; Neuro/Neuroscience; Neuro/Neurosurgery).¹⁶

Definitions of **NEUROMODULATION**:

- Electrical stimulation of a peripheral nerve, the spinal cord, or the brain for relief of pain, it may be done transcutaneously or with an implanted stimulator; therapeutic alteration of activity in the central, peripheral, or autonomic nervous systems, electrically or pharmacologically, by means of implanted devices; controlled stimulation of the peripheral or central nervous system with electricity.¹⁷

Definitions of **NEUROSCIENCE**:

- A branch (such as neurophysiology) of the life sciences that deals with the anatomy, physiology, biochemistry, or molecular biology of nerves and nervous tissue and especially with their relation to behavior and learning; the scientific study of behavior.¹⁸
- Any science dealing with the functions, abnormalities, etc. of the nervous system; the field of study encompassing the various scientific disciplines dealing with the structure, development, function, chemistry, pharmacology, and pathology of the nervous system.¹⁹

The Examining Attorney also made of record articles discussing various disciplines of the neurological sciences, including their study of, or affect upon brain functions or brain waves (emphasis added):

- (Georgetown University Medical Center, Department of **Neuroscience**) About **Neuroscience**: What is **Neuroscience**? any or all of the sciences, such as **neurochemistry** and experimental psychology, which deal with the structure or function of the nervous system and brain. **Neuroscience**, also known as Neural Science, is the study of how the nervous system develops, its structure, and what it does. ... **Neurophysiology** – looks at the relationship of the brain and its functions, and the sum of the body's parts and how they interrelate. The study of how the nervous system functions, typically using physiological

¹⁶ Office Action Response of October 16, 2020, at TSDR 72 (referencing ALLACRONYMS.COM).

¹⁷ Office Action of May 19, 2020, at TSDR 12-13 (referencing THE FREE DICTIONARY BY FARLEX).

¹⁸ Office Action of June 14, 2021, at TSDR 7-8 (referencing MERRIAM-WEBSTER).

¹⁹ Office Action of June 14, 2021, at TSDR 10 (referencing COLLINS, American English).

techniques, such as stimulation with electrodes, light-sensitive channels, or ion- or voltage-sensitive dyes.²⁰

- (SCIENCE DAILY) Brain **wave** device enhances memory function: The entrainment of theta brain **waves** with a commercially available device not only enhances theta **wave** activity, but also boosts memory performance. Electrical activity in the brain causes different types of brain **waves** that can be measured on the outside of the head. Theta **waves** occur at about five to six cycles per second, often associated with a brain that is actively monitoring something “Entrainment” devices use a combination of sound and lights to stimulate brain **wave** activity. ... The devices are marketed to address a range of problems such as anxiety, sleep issues, “low mood” and learning.²¹
- (Blue Valley Physical Therapy & Sports Medicine, bluevalleypt.com) Our brain is made up of a complex cellular network of around 86 billion **neurons** ..., with multiple points of connection between each pair. These connection points are called synapses. ... Messages from **neuron** to **neuron** are sent via an electrochemical signals. The signal from one **neuron** to another is too small to detect, but when there are synchronised electrical pulses from groups of **neurons**, a detectable **brainwave** is produced. **Brainwaves** are used to communicate our thoughts, emotions and behaviours throughout the brain. An EEG can detect brainwaves through sensors placed on the scalp, giving us the ability to see brain function and health in real time. ...

Types of **Brainwaves**: The human brain communicates through varying types of **brainwaves**. [They] ... are classified according to their frequency, or cycles per second, measured in Hertz. Different types of **brainwaves** are are [sic] more dominant with certain activities or feelings. ... **Infra-Low Waves** (<.5 Hz) ... are the basic rhythms that underlie higher brain functions. ... **Delta Waves**: (0.5 - 4 Hz) [o]ccur when we are asleep but not dreaming. It is thought that **Delta waves** are essential for healing and regeneration. ... **Theta Waves** (4 -8 Hz) [are] [p]revalent while dreaming or in deep meditation. Theta waves help us to learn and develop memories. **Alpha Waves** (8 - 13 Hz) [o]ccur when we are physically and mentally relaxed. They are waves of quiet thinking, and active when we are being creative and artistic. ... [they] are the gateway towards mental coordination, calmness, alertness and learning. ... **Beta Waves** (13 - 32 Hz) [d]ominat[e] our normal waking state, ... [and] control alert consciousness. They help us with active thinking, conversation, decision making, problem solving, and focusing on the task at hand. ... **Gamma Waves** (32 - 100 Hz) [are] [i]nvolved in rapid processing of information from different

²⁰ Office Action of December 8, 2020, at TSDR 26-29.

²¹ Office Action of December 8, 2020, at TSDR 30-31.

parts of the brain. [They] ... are the pathway to heightened perception, and our highest mental state for learning and problem-solving.²²

- (Anatomical Concepts, biofeedback-tech.com) Types of brain **waves** – Brain **waves** ... is a commonly used description of the tiny electrical signals that can be recorded at the scalp of subjects undergoing electroencephalogram (EEG) signal measurement. In this article we take a look at the so-called types of brain **waves** that are seen in a typical EEG recording. ... [T]he characteristic components of the EEG ha[ve] been described as the delta, theta, alpha and beta frequency **wave** bands that are still often used today.²³
- (Healthline, healthline.com) There are actually five common types of brain **waves**. Brain **waves** are measured by frequency, which is cycles per second, or hertz (Hz), and they range from very slow to very fast. [The article goes on to describe Delta, Theta, Alpha, Beta and Gama **waves** by frequency (Hz) and function] ... A test called an EEG can identify and measure the electrical activity in your brain. Your doctor may order an EEG to see if there are any unusual patterns in your brain **waves**, or problems that might suggest you have epilepsy or another type of brain disorder.²⁴
- (Science Direct, sciencedirect.com) Technological Basics of EEG Recording and Operation of Apparatus – Brain **waves** are oscillating electrical voltages in the brain measuring just a few millionths of a volt. There are five widely recognized brain waves ... [measured by] ... frequency and brain state) ... Gamma (>35 Hz: concentration); Beta (12-35 Hz: anxiety dominant, active, external attention, relaxed); Alpha (8-12 Hz: very relaxed, passive attention); Theta (4-8 Hz: deeply relaxed, inward focused); and Delta (0.5-4 Hz: sleep). ... Changes in brain **wave** activities, assessed with EEG, have been observed during the transition from wake to sleep state and vice versa. ... EEG biofeedback as a treatment method seemingly has “risen from the ashes” under the new title NF [**neuro**feedback] and is rapidly growing in popularity as a sole or adjunct treatment for an increasingly large number of disorders, many of which have been resistant to more traditional therapies.²⁵
- (Drake Institute of Neurophysical Medicine, drakeinstitute.com) **Neuro**stimulation provides therapeutic **neuromodulation** of dysregulated brain functioning (abnormal brain **wave** patterns) linked to symptoms, helping to enhance and accelerate therapeutic improvement from

²² Office Action of June 14, 2021, at TSDR 60-62.

²³ Office Action of June 14, 2021, at TSDR 63-64.

²⁴ Office Action of June 14, 2021, at TSDR 74-75; Denial of Reconsideration of March 4, 2022, at TSDR 32-33.

²⁵ Denial of Reconsideration of March 4, 2022, at TSDR 25, 26, 28.

neurofeedback. Neurostimulation is helping the brain achieve more normalizing functioning more rapidly to reduce symptoms.²⁶

- The Royal Society Publishing, royalsocietypublishing.com) **Neuromodulation of the mind-wandering brain state: the interaction between neuromodulatory tone, sharp wave-ripples and spontaneous thought**.²⁷
- (Dr. Roseann **Neurofeedback**, Evaluation & Therapy) **Brainwave Training For Better Health – Th[e] dynamic, interconnected web of biological energy [in the brain] is impacted by everything in our environment. Neurofeedback provides brainwave training to our system; it focuses on our central nervous system, which directly improves the brain's ability to self-regulate. Without self-regulation, disorders of the central nervous system (CNS) can result in anxiety, depression, headaches and other conditions. Neurofeedback directly alters brainwave function**.²⁸
- (**Neurohealth**, nhahealth.com) The EEG (electroencephalograph) measures **brainwaves** of different frequencies within the brain. Electrodes are placed on specific sites on the scalp to detect and record the electrical impulses within the brain. A frequency is the number of times a **wave** repeats itself within a second. It can be compared to the frequencies that you tune into on your radio. If any of these frequencies are deficient. Excessive, or difficult to access, our mental performance can suffer. The raw EEG has usually been described in terms of frequency bands: Gamma (greater than 30 Hz), Beta (13-30Hz), Alpha (8-12 Hz), Theta (4-8 Hz), and Delta (less than 4 Hz).²⁹

The Examining Attorney additionally made of record Applicant's own uses of words that include or comprise the terms "Neuro" or "Wave" (emphasis added):

- (BUSINESS WIRE, Applicant's press release): Wave Neuroscience Completes Major Brain Treatment Technology Asset Purchase: ... – Wave Neuroscience – a provider of non-invasive **neuromodulation** technology aimed at addressing **neurological** disorders and enhancing cognitive brain function – announces the completion of an asset purchase from Newport Brain Research Laboratory (NBRL). ... The crux of Wave Neuroscience's research revolves around the premise that the brain can be treated by non-pharmaceutical and non-surgical means. ... The company's dedicated team of **neuroscientists** and physicians has put their talents towards delivering individualized treatment aimed at achieving a healthier life for people with various **neurological** issues. ... Wave

²⁶ Denial of Reconsideration of March 4, 2022, at TSDR 35.

²⁷ Denial of Reconsideration of March 4, 2022, at TSDR 38.

²⁸ Denial of Reconsideration of March 4, 2022, at TSDR 40-41.

²⁹ Denial of Reconsideration of March 4, 2022, at TSDR 45.

Neuroscience offers a personalized treatment platform for addressing **neurological** abnormalities

About Wave Neuroscience: Wave Neuroscience’s goal is to empower and optimize brain function. The company’s patented MeRTSM process improves non-invasive **neuromodulation** technology by precisely adjusting neural networks to address a wide range of neurological disorders, as well as enhance cognitive performance, using non-pharmacological methods. The company’s precise, personalized therapy analyzes **brainwave** activity using machine-learning that helps guide decisions on treatment stimulation parameters.³⁰

- (Applicant’s website: waveneuro.com) Translational **neuroscience** that has revolutionized mental health & wellness. Experience what Wave Neuroscience’s individualized approach can do for you. ... Our Approach: The brain is an electro-chemical organ. For the better part of medical history, the world has focused on chemical aspects of the brain. Wave Neuro takes a different approach by researching and targeting **brainwaves** – the electrical currents that occur when neurons communicate with each other. ... Every day, we advance the field of **neuroscience** and work to make extraordinary healthcare incredibly accessible. ... Our **neuromodulation** technology is backed by nine third-party clinical studies led by world-renown research institutions. ... When the different regions of the brain share the same **wave** pattern, the brain is more efficient. When the regions are not synchronized, cognitive symptoms are often observed. For example, when a client has depression, their alpha and theta **wave** patterns typically differ across the left and right frontal hemispheres. Our proprietary collection of historical data allows us to correlate unique patterns like this to symptoms and mental conditions.³¹

IV. Evidence Made of Record to Show that “Wave” has a Connotation other than in connection with the Neuroscience Disciplines

Applicant argues that the term WAVE is suggestive because it has multiple meanings, connotations or commercial impressions.³² In support, Applicant states it is located in Newport Beach, California, and made of record captures of websites, which it contends shows that several businesses located in the Southern California

³⁰ Office Action of December 8, 2020, at TSDR 24-25.

³¹ Office Action of June 14, 2021, at TSDR 11, 13, 14 and 17; Denial of Reconsideration of March 4, 2022, at TSDR 15, 17, 18, 22.

³² Applicant’s Brief, 8 TTABVUE 17-18.

area near the beach use the term WAVE in their business names to suggest their location:

- H-Wave, a medical manufacturer located in Huntington Beach, California.
- Luz Wave Art of Healing, a skin care, acupuncture, and physical therapy practice located in Tustin, California.
- Wave Medical Group, a medical practice located in Costa Mesa, California.
- Wave Tech, a computer services company located in Huntington Beach, California.³³

V. Evidence Made of Record to Show that “Wave Neuro” points to Applicant as a Designation of Source

Applicant also argues that “[a] consumer performing a Google Search for WAVE NEURO would only find information about Applicant. ... In this instance, it is clear that the general consuming public **will not** have any reason to believe or find that WAVE NEURO is descriptive of Applicant’s Goods and Services.” (emphasis by Applicant).³⁴ In support, Applicant made of record the first eight results of a Google search using the terms “wave neuro.” All eight entries in the search results refer to Applicant.³⁵

VI. Third-Party Registration for the mark WAVENEURO

With the first Office Action, the Examining Attorney made of record a third-party registration for the following:³⁶

³³ Office Action Response of October 16, 2020, at TSDR 61-71.

³⁴ Applicant’s Brief, 8 TTABVue 20-21.

³⁵ Request for Reconsideration of December 8, 2021, at TSDR 35-36.

³⁶ Office Action of May 19, 2020, at TSDR 21-23.

Mark and Registration No.	Owner	Goods
WAVENEURO 5500782	Pine Research Instrumentation, Inc. Durham, North Carolina	Electrochemical research instruments and equipment, namely, potentiostats and galvanostats and parts therefor; accessories for potentiostats and galvanostats, namely, connection cables, and software for use in analyzing data from potentiostats and galvanostats; Laboratory instrumentation and experimentation apparatus for biological data acquisition and biological electrical stimulation, namely, devices to detect and create biological electrical signals in non-human brain tissue for purposes of scientific experimentation, in Class 9.

The Examining Attorney initially raised the WAVENEURO mark of Registration No. 5500782 as a bar to registration on the ground of likelihood of confusion.³⁷ The Examining Attorney later withdrew the refusal based on the WAVENEURO mark.³⁸ Applicant argues that, because the USPTO previously registered the mark WAVENEURO of Registration No. 5500782, and did not find the term to be descriptive of the identified goods, then the proposed mark WAVE NEURO should

³⁷ Office Action of May 19, 2020, at TSDR 2-4.

³⁸ Office Action of December 8, 2020, at TSDR 2.

also not be deemed to be descriptive in connection with Applicant's goods and services.³⁹

VII. Discussion and Analysis

In the context of Applicant's identified goods and services, the term WAVE clearly and immediately refers to a BRAINWAVE or BRAINWAVES. The term BRAINWAVE is used in the recitation of every goods and services class in the Application on appeal. That the term WAVE refers to a BRAINWAVE or BRAINWAVES is supported by the dictionary definitions, third-party articles, Applicant's press release and captures of Applicant's website made of record by the Examining Attorney.

Applicant argues that, "the evidence provided by the Examining Attorney which purportedly provides medical definitions of the term 'wave' includes so many different definitions that it could relate to just about anything. This evidence does nothing to show that consumers would be aware of any of these definitions and find that the term is descriptive as these are specialized definitions."⁴⁰ This argument is unavailing for a few reasons.

First, as we noted above, whether a term is merely descriptive is determined in relation to the goods or services for which registration is sought and the context in which the term is used, not in the abstract. *In re Abcor*, 200 USPQ at 218. The question is whether someone who knows what the goods or services are will

³⁹ Applicant's Brief, 8 TTABVUE 12, 18 and 21.

⁴⁰ Applicant's Brief, 8 TTABVUE 16.

understand the mark to convey information about them. *In re TriVita*, 114 USPQ2d at 1575. “That a term may have other meanings in different contexts is not controlling ...” *In re NextGen*, 2023 USPQ2d 14, at *6. Therefore, the fact that WAVE has numerous meanings⁴¹ other than the ones relied upon by the Examining Attorney is of no moment.

A simple reading of Applicant’s identification of goods and services indicates that Applicant’s proposed mark will be used in the medical industry – particularly by clinicians who would use Applicant’s goods and services to study or affect a patient’s brainwave function. In this context, supported by the additional evidence the Examining Attorney made of record, consumers (users) of Applicant’s goods and services clearly will know that WAVE refers to brainwaves, thus merely describing the qualities, features, functions, or characteristics of those goods and services.

Second, the question of whether WAVE is merely descriptive of Applicant’s goods and services is identical to that same issue which was involved in the Prior Proceeding; this issue was raised, litigated and actually adjudged in the Prior Proceeding; the determination of that issue was necessary and essential to the Board’s resulting judgment; and Applicant had a full and fair opportunity to litigate that issue in the Prior Proceeding. Therefore, Applicant is collaterally estopped by way of issue preclusion from relitigating in the present appeal whether WAVE is merely descriptive. *Mayer/Berkshire*, 76 USPQ2d at 1313. In any event, the record

⁴¹ One of these “other” definitions that we do not find relevant include Applicant’s proffered meaning that WAVE refers to a business located near the beach.

in this proceeding also supports a finding that WAVE in the context of the applied-for goods and services refers to BRAINWAVES and merely describes the qualities, features, functions, or characteristics of those goods and services.

On the other hand, Applicant is not collaterally estopped from litigating in this appeal whether NEURO is merely descriptive of Applicant's goods and services. The second term of Applicant's proposed marks involved in the Prior Proceeding was NEUROSCIENCE, not NEURO. Because the question of whether NEURO is merely descriptive was not litigated in the Prior Proceeding, we decide that question based solely upon the record now before us. Applicant also is not collaterally estopped from litigating in this appeal whether the combined terms WAVE NEURO have a separate meaning that is not merely descriptive of Applicant's goods and services – even though we disagree with that argument based on the present record.

Applicant argues that “the term NEURO is one component of a compound term and therefore also does not have a definitive meaning and can therefore not be descriptive of Applicant's goods and services.”⁴² We disagree. To the contrary, as noted below, the record does show that NEURO has a recognized meaning when used apart from the larger words it is used to form. According to the dictionary definitions provided by Applicant and the Examining Attorney, as well as the articles, Applicant's press release and captures of Applicant's website made of record by the Examining Attorney, the full terms of which NEURO is a part all refer to some aspect of the neurological sciences (e.g., neurology, neuromuscular, neuro-scientist,

⁴² Applicant's Brief, 8 TTABVUE 12.

neurologist, neurological, neuroscience, neurosurgery, neuromodulation, neurophysiology, neurostimulation, neurofeedback, neurohealth, etc.).

A reading of Applicant's identification of goods and services shows that at least one of the two terms NEUROLOGICAL and/or NEUROMODULATION is used in the recitation of every goods and services class in the Application on appeal. Consumers (users) of Applicant's goods and services, clinicians who would use them in their fields of study or treatment, plainly will know that NEURO refers to some aspect of the neurological sciences. Thus NEURO merely describes the qualities, features, functions, or characteristics of Applicant's goods and services.

Having found that WAVE and NEURO each are merely descriptive of Applicant's goods and services, this leaves for us to decide whether the proposed mark WAVE NEURO as a whole is merely descriptive. As we said above, if each component of the proposed mark (WAVE and NEURO) retains its merely descriptive significance in relation to Applicant's goods and services, the combination (WAVE NEURO) results in a composite that is itself merely descriptive. *In re Oppedahl & Larson*, 71 USPQ2d at 1374; *In re Phoseon Tech.*, 103 USPQ2d at 1823.

We find that, when used in connection with Applicant's goods and services, each of the WAVE and NEURO elements of Applicant's proposed mark retain their merely descriptive significance in relation to those goods and services. The combination of terms (WAVE NEURO) does not create a unitary mark with a non-descriptive meaning, nor does the composite have a bizarre or incongruous meaning as applied to Applicant's goods or services. As a whole, then, the mark WAVE NEURO merely

describes the qualities, features, functions, or characteristics of Applicant's goods and services, and we do not need to engage in extensive thought or follow a multi-stage reasoning process in order to make this determination. As identified in the Application on appeal:

- WAVE NEURO is merely descriptive of “downloadable computer operating programs and computer operating software for neuromodulation devices and devices for the analysis of data of brainwave activity; downloadable computer programs and software for the analysis of data about neurological disorders and brainwave activity,” in Class 9 because the proposed mark readily describes the features and functions of Applicant's software.
- WAVE NEURO is merely descriptive of “medical devices, namely, neuromodulation devices and devices for the analysis of brainwave activity,” in Class 10 because the proposed mark directly states the functions and characteristics of Applicant's medical devices.
- WAVE NEURO is merely descriptive of “medical, scientific, and clinical research in the fields of neurological disorders, treatment of neurological disorders, neuromodulation technology, analysis of brainwave activity, and cognitive performance; online non-downloadable software for the analysis of data of neurological disorders and brainwave activity; software-as-a-service, namely, non-downloadable operating programs and non-downloadable computer operating software for neuromodulation devices and devices for the analysis of of [sic] data of brainwave activity,” in Class 42 because the proposed mark sets out the characteristics of Applicant's research services, and readily describes the features and functions of Applicant's software provided online.
- WAVE NEURO is merely descriptive of “medical clinics in the field of analysis and treatment of neurological disorders, brainwave activity, and cognitive performance, in Class 44 because the proposed mark immediately recounts the qualities and characteristics of the activities performed at Applicant's medical clinics.

We also find that two of Applicant's principal arguments lack merit. As noted, Applicant argues that “[a] consumer performing a Google Search for WAVE NEURO would only find information about Applicant. ... [therefore,] the general consuming public **will not** have any reason to believe or find that WAVE NEURO is descriptive

of Applicant’s Goods and Services.” (emphasis by Applicant).⁴³ That Applicant may be the first or only user of WAVE NEURO does not prove that the phrase is not merely descriptive. *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 543 U.S. 111, 72 USPQ2d 1833, 1838 (2004) (trademark law does not countenance someone obtaining “a complete monopoly on use of a descriptive term simply by grabbing it first”); *In re Bailey Meter Co.*, 102 F.2d 843, 41 USPQ 275, 276 (CCPA 1939) (“The fact that appellant may have been the first and only one to adopt and use the mark sought to be registered does not prove that the mark is not descriptive....”); *In re Cent. Sprinkler Co.*, 49 USPQ2d 1194, 1199 (TTAB 1998) (“The fact that applicant may be the first or the only one using ATTIC in connection with sprinklers is not dispositive.”).

Applicant also argues that, because the USPTO previously registered the mark WAVENEURO of Registration No. 5500782, and did not find the term to be descriptive of the identified goods, then the proposed mark WAVE NEURO should also not be deemed to be descriptive in connection with Applicant’s goods and services.⁴⁴ To begin, Registration No. 5500782, issued to Pine Research Instrumentation, Inc., recites goods that are remote or, as Applicant itself put it, “vastly different” from Applicant’s identified goods and services.⁴⁵ We therefore do

⁴³ Applicant’s Brief, 8 TTABVUE 20-21.

⁴⁴ Applicant’s Brief, 8 TTABVUE 12, 18 and 21.

⁴⁵ During prosecution, Applicant strenuously argued that “Applicant’s goods and services are vastly different from the goods in ... Registration [No. 5500782].” Office Action Response of October 16, 2020, at TSDR 13. While an applicant’s statements made during prosecution do not rise to the level of prosecution history estoppel as they do in the patent context, “such comments have significance as facts illuminative of shade and tone in the total picture

not afford this registration much weight. A third-party registration that does not cover the same or similar goods as those goods and services in Applicant's pending Application has limited probative value. *Cf. In re i.am.symbolic, LLC*, 866 F.3d 1315, 123 USPQ2d 1744, 1751 (Fed. Cir. 2017).

We also afford little weight to Registration No. 5500782 simply because we are not bound by a single decision of an examining attorney in one other application. "It has been said many times that each case must be decided on its own facts." *In re Eagle Crest Inc.*, 96 USPQ2d 1227, 1229 (TTAB 2010) (internal citation omitted). *See also, In re Nett Designs Inc.*, 236 F.3d 1339, 57 USPQ2d 1564, 1566 (Fed. Cir. 2001) ("Even if some prior registrations had some characteristics similar to [Applicant's] application, the PTO's allowance of such prior registrations does not bind the Board or this court."); *In re Cordua Rests., Inc.*, 823 F.3d 594, 118 USPQ2d 1632, 1635 (Fed. Cir. 2016) (the USPTO must "examine all trademark applications for compliance with each and every eligibility requirement" regardless of the prior treatment of applications involving similar marks). "Neither the Board nor any Trademark Examining Attorney is bound by decisions of [prior] Examining Attorneys to register prior marks." *In re USA Warriors Ice Hockey Program, Inc.*, 122 USPQ2d 1790, 1793 n.10 (TTAB 2017); *see also, In re Merrill Lynch, Pierce, Fenner & Smith Inc.*, 828 F.2d 1567, 4 USPQ2d 1141, 1142 (Fed. Cir. 1987) ("Each application for registration must be considered on its own merits."). In sum, we make our own findings of fact based on

confronting the decision maker" *Juice Generation, Inc. v. GS Enters. LLC*, 794 F.3d 1334, 115 USPQ2d 1671, 1675 (Fed. Cir. 2015) (internal quotations and quotation marks omitted),

the record before us in each proceeding, and that duty is not delegated by adopting the conclusions reached by an examining attorney in a separate matter. *In re Sunmarks, Inc.*, 32 USPQ2d 1470, 1472 (TTAB 1994); *In re BankAmerica Corp.*, 231 USPQ 873, 876 (TTAB 1986).

Decision:

The refusal to register Applicant's proposed mark WAVE NEURO on the ground of mere descriptiveness pursuant to Trademark Act Section 2(e)(1) is affirmed as to all goods and services classes.